IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.(Previously Presented) An inductive transmission system for inductive transmission of power and full duplex data signals between a first device and a second device, comprising:

a bidirectional inductive channel between the first device and the second device,

first transmission means for transmitting a power signal at a first frequency from the first device to the second device over the inductive channel,

a first modulating device for modulating a first data signal at a first modulation frequency,

a second modulating device for modulating a second data signal at a second modulation frequency,

second transmission means for transmitting the modulated first

data signals from the first device to the second device over the inductive channel, and for transmitting the modulated second data signals from the second device to the first device over the inductive channel,

wherein the first modulation frequency and the second modulation frequency are an even factor apart, wherein the transmission system furthermore comprises detection means for demodulating the first data signal at the first device and demodulating the second data signal at the second device and signal cancellation means for cancellation of the first data signal from the second data signal received at the first device and cancellation of the second data signal from the first data signal received at the second device.

2. (Previously Presented) The inductive transmission system according to claim 1, wherein the first modulating device and the second modulating device are suitable for performing amplitude modulation.

3. (Previously Presented) The inductive transmission system

according to claim 1, wherein the detection means are synchronous detection means.

4.(Previously Presented) The inductive transmission system according to claim 1, wherein the first frequency is a factor 10 or more apart from the first and second modulation frequency.

5.(Previously Presented) The inductive transmission system according to claim 1, wherein the first transmission means comprises a first coil at the first device and a first coil at the second device.

6.(Previously Presented) The inductive transmission system according to claim 1, wherein the second transmission means comprises a second coil at the first device and a second coil at the second device.

7.(Previously Presented) A method for inductive transmission of power and full duplex data signals between a first device and a second device, comprising the acts of:

transmitting power signals from the first device to the second device at a first frequency over an inductive channel,

transmitting first data signals modulated at a second frequency from the first device to the second device over the inductive channel,

transmitting second data signals modulated at a third frequency from the second device to the first device over the inductive channel, the second and third frequency being an even factor apart,

demodulating the first data signal and the second data signal on the first device side respectively second device side,

demodulating the second data signal at the second device,

canceling the first data signal from the second data signal received at the first device at the first device respectively second device , and

canceling the second data signal from the first data signal received at the second device.

8.(Previously Presented) The method according to claim 7, comprising amplitude modulating the first data signals and the

second data signals before transmission.

9.(Previously Presented) The method according to claim 7, wherein demodulating the first data signal and the second data signal comprises performing synchronous detection.

10.(Previously Presented) The inductive transmission system of claim 1, further comprising a high pass filter between the first device and the second device, the high pass filter being configured to eliminate the first frequency out of a data channel used for exchange of the first data signal and the second data signal.

11.(Previously Presented) The inductive transmission system of claim 1, further comprising a high pass filter configured to filter at least one of the first data signal and the second data signal to eliminate the first frequency.

12.(Previously Presented) The inductive transmission system of claim 11, wherein the high pass filter passes frequencies above 500Khz.

13.(Previously Presented) The method of claim 7, further comprising the act of filtering at least one of the first data signal and the second data signal to eliminate the first frequency.

14.(Previously Presented) The method of claim 13, wherein the filtering act passes frequencies above 500Khz.